

REMARKS/ARGUMENTS

The Applicants originally submitted Claims 1-50 in the application. The Applicants have not amended, canceled or added any claims. Accordingly, Claims 1-50 are currently pending in the application.

I. Rejection of Claims 1-18 under 35 U.S.C. §103

The Examiner has rejected Claims 1-18 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,732,286 to Leger in view of U.S. Patent No. 5,802,310 to Rajaraman. The Applicants respectfully disagree.

Leger is directed to peripheral hardware controllers in computer systems, and, more particularly, to a controller that uses a first-in, first-out (FIFO) buffer to control data transfer across a CPU bus to and from peripheral devices. (Column 1, lines 6-10). Leger teaches a host processor 101, a host main memory 102 and a peripheral hardware controller 103 coupled to a CPU system interface bus 104. (Figure 1). The peripheral hardware controller 103 includes FIFO buffers 208 and a FIFO controller 207. (Figure 2). Leger does not teach or suggest, however, facilitating communications between a master device and a slave device including issuing an event driven message to the master device when a level of a FIFO buffer of the slave device reaches a threshold. (Claims 1 and 10).

Neither the host processor 101 nor the host main memory 102 of Leger perform buffer management for the peripheral hardware controller 103 and, therefore, neither is a master device thereof. On the contrary, the FIFO controller 207 provides management of the FIFO buffers 208. (Column 5, lines 44-50). Additionally, even if the host processor 101 and the host main memory 102

were a master device and the peripheral hardware controller 103 was a slave device, the peripheral hardware controller 103 does not issue an event driven message to the host processor 101 or the host main memory 102 when a level of the FIFO buffers 208 reaches a threshold. Instead, the FIFO controller 207 manages operation of the FIFO buffers 208 and sends data packets from the FIFO buffers 208 to the host main memory 102. (Column 7, lines 10-21). An event driven message is not issued to the host processor 101 or the host main memory 102. Leger, therefore, does not teach or suggest each and every element for which it has been cited.

Rajaraman has not been cited to cure the deficiencies of Leger but to teach transmitting. (Examiner's Action, page 1). Rajaraman is directed to providing a system and method for communicating data from an application via a data channel which efficiently utilizes the data channel capacity. (Column 3, line 66 to Column 4, line 4). Rajaraman, however, also does not teach or suggest facilitating communications between a master device and a slave device including issuing an event driven message to the master device when a level of a FIFO buffer of the slave device reaches a threshold. (Claims 1 and 10). On the contrary, Rajaraman teaches sending information about a communications buffer 60 to an application data transfer controller 54 that determines to send data to a queue 56 of the communications buffer 60 based on the information. (Column 6, lines 10-17 and Figure 5). A message, especially an event driven message, is not issued to the application data transfer controller 54. Thus, Rajaraman does not cure the deficiencies of Leger.

Therefore, the cited combination of Leger and Rajaraman, individually or in combination, fails to teach or suggest the invention recited in independent Claims 1 and 10 and Claims dependent thereon. Accordingly, the Applicants respectfully request the Examiner withdraw the 35 U.S.C. §103(a) rejection of Claims 1-18 and allow issuance thereof.

II. Rejection of Claims 19-22, 25-29, 32-38 and 41-48 under 35 U.S.C. §103

The Examiner has rejected Claims 19-22, 25-29, 32-38 and 41-48 under 35 U.S.C. §103(a) as being unpatentable over Leger in view of Rajaraman and in further view of U.S. Patent No. 6,601,105 to Bell, Jr., *et al.* (Bell). The Applicants respectfully disagree.

As discussed above, the cited combination of Leger and Rajaraman does not teach or suggest each and every element of independent Claims 1 and 10. More specifically, the cited combination of Leger and Rajaraman does not teach or suggest facilitating communications between a master device and a slave device including issuing an event driven message to the master device when a level of a FIFO buffer of the slave device reaches a threshold as recited in Claims 1 and 10. Independent Claims 19, 26, 33 and 41 also include the limitation issuing an event driven message to a master device when a level of a FIFO buffer of a slave device reaches a threshold. Thus, the cited combination of Leger and Rajaraman does not teach or suggest each and every element of independent Claims 19, 26, 33 and 41.

Bell has not been cited to cure the deficiencies of the cited combination of Leger and Rajaraman but to teach an additional limitation of independent Claims 19, 26, 33 and 41. More specifically, Bell has been cited to teach an aggregate level detector. (Examiner's Action, page 3). Bell, however, also does not teach or suggest issuing an event driven message to a master device when a level of a FIFO buffer of a slave device reaches a threshold as recited in independent Claims 19, 26, 33 and 41. On the contrary, Bell teaches sending a grant/hold signal to a producer 12 indicating a number of packets that may be sent to a buffer 14 subject to a latency Y. (Column 3, lines 34-39 and Figure 1). Thus, the cited combination of Leger, Rajaraman and Bell does not teach or suggest each and every element of independent Claims 19, 26, 33 and 41.

Therefore, the cited combination of Leger, Rajaraman and Bell, individually or in combination, fails to teach or suggest the invention recited in independent Claims 19, 26, 33 and 41 and Claims dependent thereon. Accordingly, the Applicants respectfully request the Examiner withdraw the 35 U.S.C. §103(a) rejection of Claims 19-22, 25-29, 32-38 and 41-48 and allow issuance thereof.

III. Rejection of Claims 23, 30, 39 and 49 under 35 U.S.C. §103

The Examiner has rejected Claims 23, 30, 39 and 49 under 35 U.S.C. §103(a) as being unpatentable over Leger in view of Rajaraman and Bell and further in view of U.S. Patent No. 6,366,959 to Sidhu, *et al.* (Sidhu). The Applicants respectfully disagree.

As discussed above, the cited combination of Leger, Rajaraman and Bell does not teach or suggest each and every element of independent Claims 19, 26, 33 and 41. Sidhu is directed to choosing buffer size and error correction coding for real time communication over packet networks. (Column 1, lines 28-32). Sidhu has not been cited to cure the deficiencies of the cited combination of Leger, Rajaraman and Bell, but to teach feedback in a single packet. (Examiner's Action, page 5). Accordingly, the cited combination of Leger, Rajaraman, Bell and Sidhu does not teach or suggest each and every element of independent Claims 19, 26, 33 and 41 and Claims that depend thereon. Accordingly, the Applicants respectfully request the Examiner withdraw the 35 U.S.C. §103(a) rejection of Claims 23, 30, 39 and 49 and allow issuance thereof.

IV. Rejection of Claims 24, 31, 40 and 50 under 35 U.S.C. §103

The Examiner has rejected Claims 24, 31, 40 and 50 under 35 U.S.C. §103(a) as being unpatentable over Leger in view of Rajaraman and Bell and further in view of U.S. Patent No. 3,586,771 to Hamburger, *et al.* (Hamburger). The Applicants respectfully disagree.

As discussed above, the cited combination of Leger, Rajaraman and Bell does not teach or suggest each and every element of independent Claims 19, 26, 33 and 41. Hamburger is directed to subscription television or radio signal distribution systems. (Column 1, lines 4-6). Hamburger has not been cited to cure the deficiencies of the cited combination of Leger, Rajaraman and Bell, but to teach a periodic message that enable a master device to determine a variation between a first clock associated with a slave device and a second clock associated with the master device. (Examiner's Action, page 6). Accordingly, the cited combination of Leger, Rajaraman, Bell and Hamburger does not teach or suggest each and every element of independent Claims 19, 26, 33 and 41 and Claims that depend thereon. Accordingly, the Applicants respectfully request the Examiner withdraw the 35 U.S.C. §103(a) rejection of Claims 24, 31, 40 and 50 and allow issuance thereof.

V. Comment on Cited References

The Applicants reserve further review of the references cited but not relied upon if relied upon in the future.

VI. Conclusion

In view of the foregoing remarks, the Applicants now see all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicit a Notice of Allowance for Claims 1-50.

The Applicants request the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application.

Respectfully submitted,

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